

chain nodes :

23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 43 44 45 46 47 49 50 52 53

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds :

1-24 1-52 2-45 3-38 3-39 4-40 4-41 5-23 8-25 10-30 10-31 11-32 11-33 14-26 16-27 17-36 17-37 18-34  
18-35 19-46 19-47 20-28 20-29 21-43 22-44 44-50 45-49 52-53

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10 11-12 12-13 13-14 13-15 14-18 15-16 15-19  
16-17 16-22 17-18 19-20 20-21 21-22

exact/norm bonds :

1-2 1-6 2-3 2-45 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10 11-12 12-13 13-14 13-15 14-18 15-16  
15-19 16-17 16-22 17-18 19-20 20-21 21-22 21-43 22-44 44-50 45-49

exact bonds :

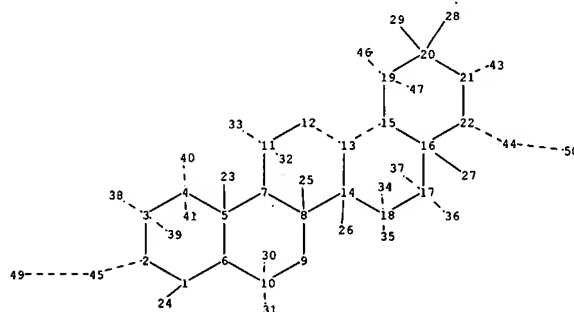
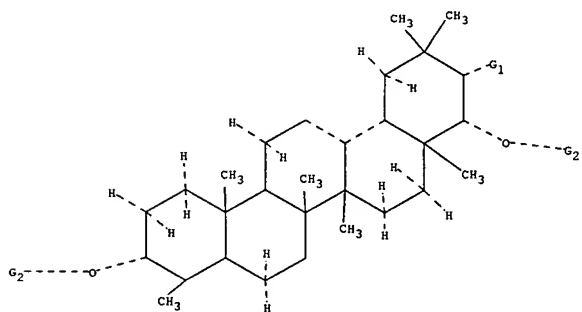
1-24 1-52 3-38 3-39 4-40 4-41 5-23 8-25 10-30 10-31 11-32 11-33 14-26 16-27 17-36 17-37 18-34 18-35  
19-46 19-47 20-28 20-29 52-53

G1:H,OH

G2:H,Hy

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom  
15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS  
27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS  
39:CLASS 40:CLASS 41:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS 47:CLASS 49:CLASS 50:CLASS 52:CLASS 53:CLASS



chain nodes :

23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 43 44 45 46 47 49 50

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

chain bonds :

1-24 2-45 3-38 3-39 4-40 4-41 5-23 8-25 10-30 10-31 11-32 11-33 14-26 16-27 17-36 17-37 18-34 18-35  
19-46 19-47 20-28 20-29 21-43 22-44 44-50 45-49

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10 11-12 12-13 13-14 13-15 14-18 15-16 15-19  
16-17 16-22 17-18 19-20 20-21 21-22

exact/norm bonds :

1-2 1-6 2-3 2-45 3-4 3-38 3-39 4-5 4-40 4-41 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10 10-30 10-31 11-12  
11-32 11-33 12-13 13-14 13-15 14-18 15-16 15-19 16-17 16-22 17-18 17-36 17-37 18-34 18-35 19-20 19-46  
19-47 20-21 21-22 21-43 22-44 44-50 45-49

exact bonds :

1-24 5-23 8-25 14-26 16-27 20-28 20-29

G1:H,OH

G2:H,Hy

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom  
15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:CLASS24:CLASS25:CLASS26:CLASS  
27:CLASS28:CLASS29:CLASS30:CLASS31:CLASS32:CLASS33:CLASS34:CLASS35:CLASS36:CLASS37:CLASS38:CLASS  
39:CLASS40:CLASS41:CLASS43:CLASS44:CLASS45:CLASS46:CLASS47:CLASS49:CLASS50:CLASS

10/521,447

FILE 'REGISTRY' ENTERED AT 09:02:47 ON 02 APR 2007  
L1 STRUCTURE UPLOADED  
L2 14 S L1 SSS SAM  
L3 STRUCTURE UPLOADED  
L4 2 S L3 SSS SAM  
L5 32 S L3 FULL  
L6 STRUCTURE UPLOADED  
L7 2 S L6 FULL

FILE 'CAPLUS' ENTERED AT 09:08:10 ON 02 APR 2007  
L8 75 S L5  
L9 15 S L7

FILE 'REGISTRY' ENTERED AT 09:11:54 ON 02 APR 2007  
L10 STRUCTURE UPLOADED  
L11 2 S L10 SSS SAM  
L12 32 S L10 FULL

10/521,447

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to 50,000  
NEWS 6 DEC 18 MEDLINE updated in preparation for 2007 reload  
NEWS 7 DEC 27 CA/CAPLUS enhanced with more pre-1907 records  
NEWS 8 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals  
NEWS 9 JAN 16 CA/CAPLUS Company Name Thesaurus enhanced and reloaded  
NEWS 10 JAN 16 IPC version 2007.01 thesaurus available on STN  
NEWS 11 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data  
NEWS 12 JAN 22 CA/CAPLUS updated with revised CAS roles  
NEWS 13 JAN 22 CA/CAPLUS enhanced with patent applications from India  
NEWS 14 JAN 29 PHAR reloaded with new search and display fields  
NEWS 15 JAN 29 CAS Registry Number crossover limit increased to 300,000 in  
multiple databases  
NEWS 16 FEB 15 PATDPASPC enhanced with Drug Approval numbers  
NEWS 17 FEB 15 RUSSIPAT enhanced with pre-1994 records  
NEWS 18 FEB 23 KOREAPAT enhanced with IPC 8 features and functionality  
NEWS 19 FEB 26 MEDLINE reloaded with enhancements  
NEWS 20 FEB 26 EMBASE enhanced with Clinical Trial Number field  
NEWS 21 FEB 26 TOXCENTER enhanced with reloaded MEDLINE  
NEWS 22 FEB 26 IFICDB/IFIPAT/IFIUDB reloaded with enhancements  
NEWS 23 FEB 26 CAS Registry Number crossover limit increased from 10,000  
to 300,000 in multiple databases  
NEWS 24 MAR 15 WPIDS/WPIX enhanced with new FRAGHITSTR display format  
NEWS 25 MAR 16 CASREACT coverage extended  
NEWS 26 MAR 20 MARPAT now updated daily  
NEWS 27 MAR 22 LWPI reloaded  
NEWS 28 MAR 30 RDISCLOSURE reloaded with enhancements  
NEWS 29 MAR 30 INPADOCDB will replace INPADOC on STN

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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=> file reg

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

McIntosh

10/521,447

FULL ESTIMATED COST

0.21

0.21

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DICTIONARY FILE UPDATES: 1 APR 2007 HIGHEST RN 928822-97-3

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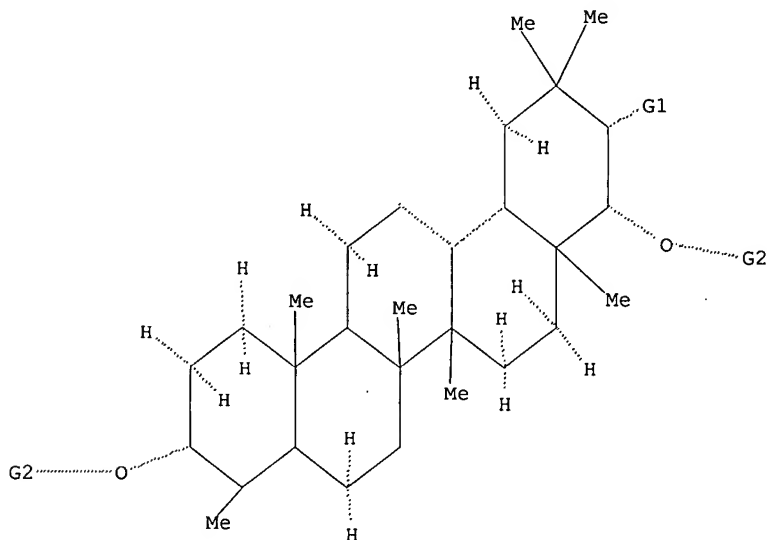
Uploading C:\Program Files\Stnexp\Queries\10521447.str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 H, OH

G2 H, Hy

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 09:03:34 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 1750 TO ITERATE

100.0% PROCESSED 1750 ITERATIONS  
SEARCH TIME: 00.00.01

14 ANSWERS

McIntosh

10/521,447

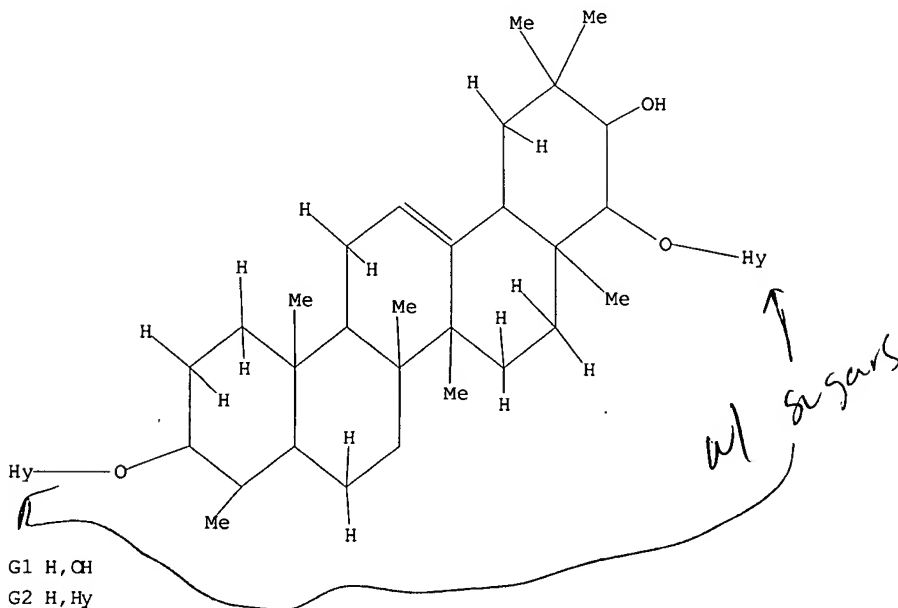
FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 32491 TO 37509  
PROJECTED ANSWERS: 56 TO 504

L2 14 SEA SSS SAM L1

=>  
Uploading C:\Program Files\Stnexp\Queries\10521447a.str

L3 STRUCTURE UPLOADED

=> d 13  
L3 HAS NO ANSWERS  
L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 13 sss sam  
SAMPLE SEARCH INITIATED 09:06:15 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 682 TO ITERATE

100.0% PROCESSED 682 ITERATIONS 2 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 12074 TO 15206  
PROJECTED ANSWERS: 2 TO 124

L4 2 SEA SSS SAM L3

=> s 13 full  
FULL SEARCH INITIATED 09:06:25 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 13075 TO ITERATE

100.0% PROCESSED 13075 ITERATIONS 32 ANSWERS  
SEARCH TIME: 00.00.01

L5 32 SEA SSS FUL L3

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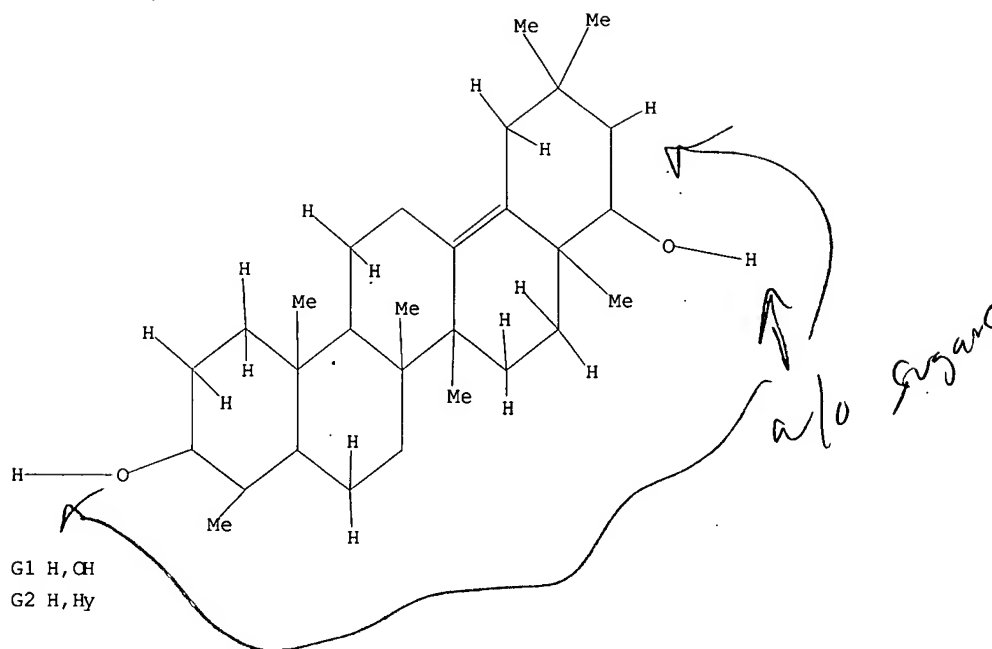
10/521,447

L6 STRUCTURE UPLOADED

=> d l6

L6 HAS NO ANSWERS

L6 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l6 full

FULL SEARCH INITIATED 09:08:02 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 33824 TO ITERATE

100.0% PROCESSED 33824 ITERATIONS  
SEARCH TIME: 00.00.01

2 ANSWERS

L7 2 SEA SSS FUL L6

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

347.35

347.56

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<http://www.cas.org/infopolicy.html>

=> s 15

L8 75 L5

=> s 17

L9 15 L7

=> d bib bas hitstr 1-15 19

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FBIB ----- AN, BIB, plus Patent FAM  
IND ----- Indexing data  
IPC ----- International Patent Classifications  
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IMAX ----- MAX, indented with text labels  
ISTD ----- STD, indented with text labels  
  
OBIB ----- AN, plus Bibliographic Data (original)  
OIBIB ----- OBIB, indented with text labels  
  
SBIB ----- BIB, no citations  
SIBIB ----- IBIB, no citations  
  
HIT ----- Fields containing hit terms  
HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)  
containing hit terms  
HITRN ----- HIT RN and its text modification  
HITSTR ----- HIT RN, its text modification, its CA index name, and  
its structure diagram  
HITSEQ ----- HIT RN, its text modification, its CA index name, its  
structure diagram, plus NTE and SEQ fields  
FHITSTR ----- First HIT RN, its text modification, its CA index name, and  
its structure diagram  
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its  
structure diagram, plus NTE and SEQ fields  
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L9 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 2001:519341 CAPLUS

McIntosh



10/521,447

DN 135:91861  
TI Method of preparing and using isoflavones  
IN Empie, Mark; Gugger, Eric  
PA Archer Daniels Midland Co., USA  
SO U.S., 8 pp., Cont.-in-part of U.S. 6,033,714.  
CODEN: USXXAM

DT Patent  
LA English

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6261565	B1	20010717	US 1998-162038	19980928
	US 5702752	A	19971230	US 1996-614545	19960313
	IL 130611	A	20010430	IL 1997-130611	19970310
	US 5792503	A	19980811	US 1997-868629	19970604
	US 6033714	A	20000307	US 1998-35588	19980305
	AU 9887879	A	19990422	AU 1998-87879	19981001
	AU 748832	B2	20020613		
	ZA 9808962	A	19990913	ZA 1998-8962	19981001
	NZ 332131	A	20010629	NZ 1998-332131	19981001
	CA 2249501	C	20030114	CA 1998-2249501	19981001
	EP 906761	A2	19990407	EP 1998-308060	19981002
	EP 906761	A3	19990519		
	EP 906761	B1	20040714		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 11221048	A	19990817	JP 1998-296187	19981002
	MX 9808146	A	20001031	MX 1998-8146	19981002
	AT 270894	T	20040715	AT 1998-308060	19981002
	EP 1466609	A1	20041013	EP 2004-15530	19981002
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	PT 906761	T	20041130	PT 1998-308060	19981002
	ES 2224337	T3	20050301	ES 1998-308060	19981002
	TW 241893	B	20051021	TW 1998-87116374	19990114
	HK 1016879	A1	20050422	HK 1999-101886	19990427
	US 6391308	B1	20020521	US 2000-615239	20000713
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	US 6391310	B1	20020521	US 2000-616205	20000713
	US 6395279	B1	20020528	US 2000-616150	20000713
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	US 2002168433	A1	20021114	US 2002-136103	20020501
	US 2002187211	A1	20021212	US 2002-136158	20020501
	US 6509381	B2	20030121		
	US 2003003168	A1	20030102	US 2002-137490	20020501
	US 6900240	B2	20050531		
	US 6518319	B1	20030211	US 2002-136150	20020501
	US 2003064938	A1	20030403	US 2002-136079	20020501
PRAI	US 1996-614545	A3	19960313		
	US 1997-868629	A2	19970604		
	US 1997-60549P	P	19971002		
	US 1998-35588	A2	19980305		
	IL 1997-120409	A3	19970310		
	US 1998-162038	A	19980928		
	US 1998-162038P	P	19980928		
	EP 1998-308060	A3	19981002		
	US 2000-615152	A3	20000713		
	US 2000-615239	A3	20000713		
	US 2000-615240	A3	20000713		
	US 2000-616150	A3	20000713		
	US 2000-616205	A3	20000713		

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1999:241997 CAPLUS  
DN 130:287063  
TI Method of preparing and using phytochemicals  
IN Empie, Mark; Gugger, Eric  
PA Archer Daniels Midland Company, USA  
SO Eur. Pat. Appl., 12 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 6

McIntosh

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP 906761	A2	19990407	EP 1998-308060	19981002	
	EP 906761	A3	19990519			
	EP 906761	B1	20040714			
		R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6261565	B1	20010717	US 1998-162038	19980928	
	ZA 9808962	A	19990913	ZA 1998-8962	19981001	
	EP 1466609	A1	20041013	EP 2004-15530	19981002	
		R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	PT 906761	T	20041130	PT 1998-308060	19981002	
	ES 2224337	T3	20050301	ES 1998-308060	19981002	
HK 1016879	A1	20050422	HK 1999-101886	19990427		
PRAI	US 1997-60549P	P	19971002			
	US 1998-162038	P	19980928			
	US 1996-614545	A3	19960313			
	US 1997-868629	A2	19970604			
	US 1998-35588	A2	19980305			
	US 1998-162038P	P	19980928			
	EP 1998-308060	A3	19981002			

L9 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1994:430348 CAPLUS  
 DN 121:30348  
 TI Alfalfa saponins and sapogenins: isolation and quantification in two different cultivars  
 AU Tava, A.; Oleszek, W.; Jurzysta, M.; Berardo, N.; Odoardi, M.  
 CS Ist. Sper. Colture Foraggere, Lodi, 20075, Italy  
 SO Phytochemical Analysis (1993), 4(6), 269-74  
 CODEN: PHANEL; ISSN: 0958-0344  
 DT Journal  
 LA English

L9 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1992:252081 CAPLUS  
 DN 116:252081  
 TI Triterpenoid saponins from Medicago hispida  
 AU Mahato, Shashi B.  
 CS Indian Inst. Chem. Biol., Calcutta, 700 032, India  
 SO Phytochemistry (1991), 30(10), 3389-93  
 CODEN: PYTCAS; ISSN: 0031-9422  
 DT Journal  
 LA English  
 OS CASREACT 116:252081

L9 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1989:474802 CAPLUS  
 DN 111:74802  
 TI New triterpenoid sapogenols from Abrus cantoniensis (I)  
 AU Takeshita, Takashi; Hamada, Shuichi; Nohara, Toshihiro  
 CS Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, 862, Japan  
 SO Chemical & Pharmaceutical Bulletin (1989), 37(3), 846-8  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 OS CASREACT 111:74802

L9 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1988:109560 CAPLUS  
 DN 108:109560  
 TI Triterpene saponins of Trigonella monspeliaca L  
 AU Oleszek, Wieslaw; Jurzysta, Marian; Burda, Stanislaw; Ploszynski, Michal  
 CS Dep. Biochem., Inst. Uprawy, Nawozenia Glebozn., Pulawy, 24-100, Pol.  
 SO Acta Societatis Botanicorum Poloniae (1987), 56(2), 281-5  
 CODEN: ASBNA2; ISSN: 0001-6977  
 DT Journal  
 LA English

L9 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1988:91707 CAPLUS  
 DN 108:91707  
 TI Studies on Medicago lupulina saponins. 5. Isolation and chemical characterization of blossom saponins

- AU Jurzysta, Marian; Burda, Stanislaw; Oleszek, Wieslaw; Gorski, Piotr;  
Ploszynski, Michal  
CS Dep. Biochem., Inst. Uprawy, Nawozenia Glebozn., Pulawy, 24-100, Pol.  
SO Acta Societatis Botanicorum Poloniae (1987), 56(1), 101-6  
CODEN: ASBNA2; ISSN: 0001-6977  
DT Journal  
LA English
- L9 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1988:91706 CAPLUS  
DN 108:91706  
TI Studies on Medicago lupulina saponins. 6. Some chemical characteristics  
and biological activity of root saponins  
AU Oleszek, Wieslaw; Jurzysta, Marian; Gorski, Piotr; Burda, Stanislaw;  
Ploszynski, Michal  
CS Dep. Biochem., Inst. Uprawy, Nawozenia Glebozn., Pulawy, 24-100, Pol.  
SO Acta Societatis Botanicorum Poloniae (1987), 56(1), 119-26  
CODEN: ASBNA2; ISSN: 0001-6977  
DT Journal  
LA English
- L9 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1987:614824 CAPLUS  
DN 107:214824  
TI Structure of soyasapogenol B1  
AU Ireland, Philip A.; Dziedzic, Stanley Z.; Drew, Michael G. B.; Forsyth,  
George A.  
CS Dep. Food Sci. Technol., Univ. Reading, Whiteknights/Reading, RG6 2AP, UK  
SO Journal of Agricultural and Food Chemistry (1987), 35(6), 971-3  
CODEN: JAFCAU; ISSN: 0021-8561  
DT Journal  
LA English
- L9 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1987:65901 CAPLUS  
DN 106:65901  
TI Soyasapogenols - separation, analysis and interconversions  
AU Price, Keith R.; Fenwick, G. Roger; Jurzysta, Marian  
CS Inst. Food Res., AFRC, Norwich, NR4 7UA, UK  
SO Journal of the Science of Food and Agriculture (1986), 37(10), 1027-34  
CODEN: JSFAAE; ISSN: 0022-5142  
DT Journal  
LA English
- L9 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1987:30074 CAPLUS  
DN 106:30074  
TI Isolation, chemical characterization and biological activity of red clover  
(Trifolium pratense L.) root saponins  
AU Oleszek, Wieslaw; Jurzysta, Marian  
CS Dep. Biochem., Inst. Soil Sci. Plant Cultiv., Pulawy, 24-100, Pol.  
SO Acta Societatis Botanicorum Poloniae (1986), 55(2), 247-52  
CODEN: ASBNA2; ISSN: 0001-6977  
DT Journal  
LA English
- L9 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1986:622710 CAPLUS  
DN 105:222710  
TI Effect of hydrolysis on sapogenin release in soy  
AU Ireland, Philip A.; Dziedzic, Stanley Z.  
CS Dep. Food Sci., Univ. Reading, Reading, RG6 2AP, UK  
SO Journal of Agricultural and Food Chemistry (1986), 34(6), 1037-41  
CODEN: JAFCAU; ISSN: 0021-8561  
DT Journal  
LA English
- L9 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1986:549761 CAPLUS  
DN 105:149761  
TI Isolation, chemical characterization and biological activity of alfalfa  
(Medicago media Pers.) root saponins  
AU Oleszek, Wieslaw; Jurzysta, Marian  
CS Dep. Biolchem. Physiol. Crop Plants, Inst. Soil Sci. Plant Cultiv.,  
Pulawy, 24-100, Pol.

10/521,447

SO Acta Societatis Botanicorum Poloniae (1986), 55(1), 23-33  
CODEN: ASBNA2; ISSN: 0001-6977  
DT Journal  
LA English

L9 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1985:468278 CAPLUS  
DN 103:68278

TI Studies on Medicago lupulina saponins. II. Isolation, chemical  
characterization, and biological activity of saponins from M. lupulina  
tops

AU Gorski, Piotr M.; Jurzysta, Marian; Burda, Stanislaw; Oleszek, Wieslaw A.;  
Ploszynski, Michal

CS Dep. Biochem. Physiol. Crop Plants, Inst. Soil Sci. Plant Cultiv., Pulawy,  
24-100, Pol.

SO Acta Societatis Botanicorum Poloniae (1984), 53(4), 527-33  
CODEN: ASBNA2; ISSN: 0001-6977

DT Journal  
LA English

L9 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1985:468277 CAPLUS  
DN 103:68277

TI Studies on Medicago lupulina saponins. I. Isolation and identification  
of sapogenins from M. lupulina tops

AU Gorski, Piotr M.; Jurzysta, Marian; Burda, Stanislaw; Oleszek, Wieslaw A.;  
Ploszynski, Michal

CS Dep. Biochem. Physiol. Crop Plants, Inst. Soil Sci. Plant Cultiv., Pulawy,  
24-100, Pol.

SO Acta Societatis Botanicorum Poloniae (1984), 53(4), 515-25  
CODEN: ASBNA2; ISSN: 0001-6977

DT Journal  
LA English

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re displayed - hitstr*

L9 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2001:519341 CAPLUS  
DN 135:91861

TI Method of preparing and using isoflavones

IN Empie, Mark; Gugger, Eric

PA Archer Daniels Midland Co., USA

SO U.S., 8 pp., Cont.-in-part of U.S. 6,033,714.

CODEN: USXXAM

DT Patent  
LA English

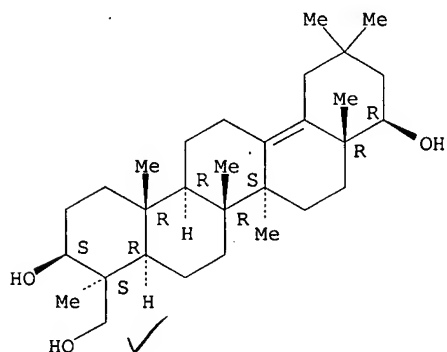
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6261565	B1	20010717	US 1998-162038	19980928
	US 5702752	A	19971230	US 1996-614545	19960313
	IL 130611	A	20010430	IL 1997-130611	19970310
	US 5792503	A	19980811	US 1997-868629	19970604
	US 6033714	A	20000307	US 1998-35588	19980305
	AU 9887879	A	19990422	AU 1998-87879	19981001
	AU 748832	B2	20020613		
	ZA 9808962	A	19990913	ZA 1998-8962	19981001
	NZ 332131	A	20010629	NZ 1998-332131	19981001
	CA 2249501	C	20030114	CA 1998-2249501	19981001
	EP 906761	A2	19990407	EP 1998-308060	19981002
	EP 906761	A3	19990519		
	EP 906761	B1	20040714		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 11221048	A	19990817	JP 1998-296187	19981002
	MX 9808146	A	20001031	MX 1998-8146	19981002
	AT 270894	T	20040715	AT 1998-308060	19981002
	EP 1466609	A1	20041013	EP 2004-15530	19981002
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	PT 906761	T	20041130	PT 1998-308060	19981002
	ES 2224337	T3	20050301	ES 1998-308060	19981002
	TW 241893	B	20051021	TW 1998-87116374	19990114
	HK 1016879	A1	20050422	HK 1999-101886	19990427

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US 6391308	B1	20020521	US 2000-615239	20000713
US 6391309	B1	20020521	US 2000-615240	20000713
US 6391310	B1	20020521	US 2000-616205	20000713
US 6395279	B1	20020528	US 2000-616150	20000713
US 6399072	B1	20020604	US 2000-615152	20000713
US 2002168433	A1	20021114	US 2002-136103	20020501
US 2002187211	A1	20021212	US 2002-136158	20020501
US 6509381	B2	20030121		
US 2003003168	A1	20030102	US 2002-137490	20020501
US 6900240	B2	20050531		
US 6518319	B1	20030211	US 2002-136150	20020501
US 2003064938	A1	20030403	US 2002-136079	20020501
PRAI US 1996-614545	A3	19960313		
US 1997-868629	A2	19970604		
US 1997-60549P	P	19971002		
US 1998-35588	A2	19980305		
IL 1997-120409	A3	19970310		
US 1998-162038	A	19980928		
US 1998-162038P	P	19980928		
EP 1998-308060	A3	19981002		
US 2000-615152	A3	20000713		
US 2000-615239	A3	20000713		
US 2000-615240	A3	20000713		
US 2000-616150	A3	20000713		
US 2000-616205	A3	20000713		
AB	The invention provides for a refinement of phytochems. in order to tailor the refined end product to particular human dietary needs. More particularly, a composition is prepared by extracting phytochems. from plant matter. This composition is enriched preferably in two or more isoflavones, lignans, saponins, catechins and phenolic acids. Soy is the preferred source of these chems.; however, other plants may also be used, such as red clover, kudzu, flax, and cocoa. The composition is a dietary supplement for treatment of various cancers, pre-and-post-menstrual syndromes, and various other disorders.			
IT	104033-83-2, Soyasapogenol F RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (isoflavone preparing method and use)			
RN	104033-83-2 CAPLUS			
CN	Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)			

Absolute stereochemistry.

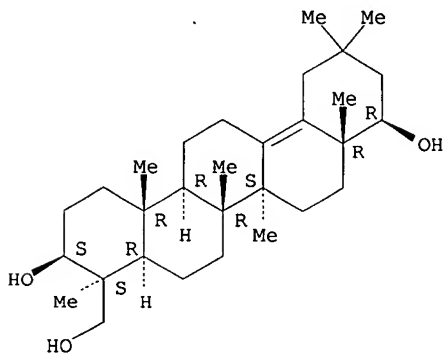


RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1999:241997 CAPLUS  
DN 130:287063  
TI Method of preparing and using phytochemicals  
IN Empie, Mark; Gugger, Eric  
PA Archer Daniels Midland Company, USA  
SO Eur. Pat. Appl., 12 pp.  
CODEN: EPXXDW  
DT Patent  
LA English  
FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 906761	A2	19990407	EP 1998-308060	19981002
	EP 906761	A3	19990519		
	EP 906761	B1	20040714		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SZ, LT, LV, FI, RO				
	US 6261565	B1	20010717	US 1998-162038	19980928
	ZA 9808962	A	19990913	ZA 1998-8962	19981001
	EP 1466609	A1	20041013	EP 2004-15530	19981002
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	PT 906761	T	20041130	PT 1998-308060	19981002
	ES 2224337	T3	20050301	ES 1998-308060	19981002
PRAI	HK 1016879	A1	20050422	HK 1999-101886	19990427
	US 1997-60549P	P	19971002		
	US 1998-162038	P	19980928		
	US 1996-614545	A3	19960313		
	US 1997-868629	A2	19970604		
	US 1998-35588	A2	19980305		
	US 1998-162038P	P	19980928		
	EP 1998-308060	A3	19981002		
	AB A composition is prepared by extracting phytochems. from plant matter. This composition is enriched preferably in isoflavones, lignans, saponins, catechins and phenolic acids. Soy is the preferred source of these chems.; however, other plants may also be used, such as red clover, kudzu, flax, and cocoa. The composition is a dietary supplement for treatment of various cancers, pre- and post-menstrual syndromes, and various other disorders.				
	IT 104033-83-2, Soyasapogenol F				
RN	RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)				
	(method of preparing and dietary use of phytochems.)				
CN	104033-83-2 CAPLUS				
	Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



L9 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1994:430348 CAPLUS  
 DN 121:30348  
 TI Alfalfa saponins and sapogenins: isolation and quantification in two different cultivars  
 AU Tava, A.; Oleszek, W.; Jurzysta, M.; Berardo, N.; Odoardi, M.  
 CS Ist. Sper. Colture Foraggere, Lodi, 20075, Italy  
 SO Phytochemical Analysis (1993), 4(6), 269-74  
 CODEN: PHANEL; ISSN: 0958-0344  
 DT Journal  
 LA English  
 AB The chemical characterization of the saponins and sapogenins isolated from roots and aerial parts of two alfalfa cultivars with differing saponin content is reported. A procedure for the extraction and quantification of saponins is described, and the identification of the major components of the saponin mixture has been performed using thin layer chromatog. and high performance liquid chromatog. Characterization, using gas chromatog. (GC) and GC/mass spectral anal., of sapogenins released following acid hydrolysis allowed the identification of medicagenic acid, hederagenin,

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soyasapogenols B, C, D, E and F as the major compds., together with oleanolic acid. Quant. anal. of the sapogenins in aerial parts and roots of the two cultivars is reported and discussed.

IT 104033-83-2

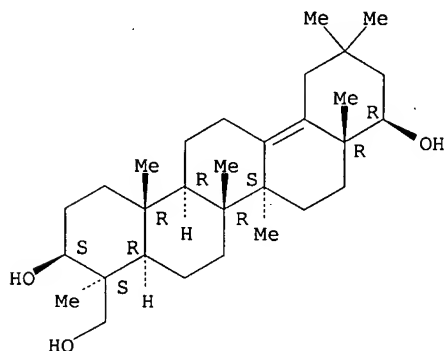
RL: ANT (Analyte); ANST (Analytical study)

(determination of, in alfalfa by chromatog. and mass spectrometry)

RN 104033-83-2 CAPLUS

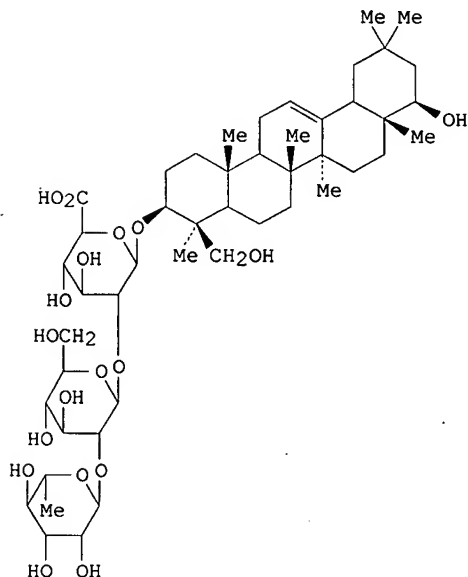
CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1992:252081 CAPLUS  
DN 116:252081  
TI Triterpenoid saponins from Medicago hispida  
AU Mahato, Shashi B.  
CS Indian Inst. Chem. Biol., Calcutta, 700 032, India  
SO Phytochemistry (1991), 30(10), 3389-93  
CODEN: PYTCAS; ISSN: 0031-9422  
DT Journal  
LA English  
OS CASREACT 116:252081  
GI

*on IDS*



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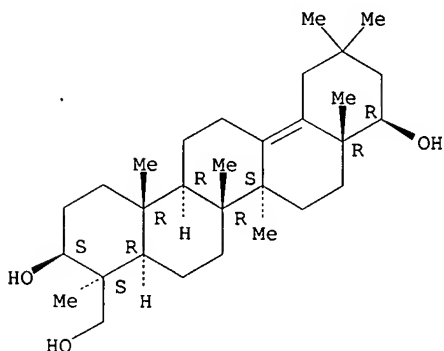
AB Soyasaponin III has been characterized and the structure of a new triterpenoid saponin, hispidacin (I), has been elucidated by a combination of fast-atom bombardment mass spectrometry,  $^{13}\text{C}$ -NMR spectroscopy, and some chemical transformations. Mechanism of transformation of soyasapogenol B to soyasapogenols D and F has also been rationalized.

IT 104033-83-2, Soyasapogenol F  
RL: BIOL (Biological study)  
(from *Medicago hispida*, transformation mechanisms in relation to)

RN 104033-83-2 CAPLUS

CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1989:474802 CAPLUS

DN 111:74802

TI New triterpenoid sapogenols from *Abrus cantoniensis* (I)

AU Takeshita, Takashi; Hamada, Shuichi; Nohara, Toshihiro

CS Fac. Pharm. Sci., Kumamoto Univ., Kumamoto, 862, Japan

SO Chemical & Pharmaceutical Bulletin (1989), 37(3), 846-8  
CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA English

QS CASREACT 111:74802

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Five new triterpenoid sapogenols, designated abrisapogenols B(I), E(II), D(III), F(IV), and G(V), were obtained from the hydrolyzate of the crude saponin fraction of *Abri Herba*, the whole plants of *Abrus cantoniensis* (Leguminosae). Their structures were determined by spectroscopic and x-ray anal.

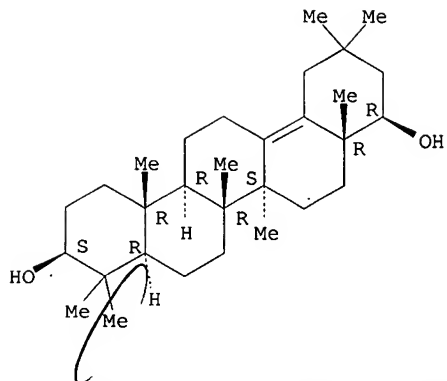
IT 121994-09-0, Abrisapogenol G  
RL: BIOL (Biological study)  
(from *Abrus cantoniensis* hydrolyzates, isolation and structure of)

RN 121994-09-0 CAPLUS

CN Olean-13(18)-ene-3,22-diol, (3 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

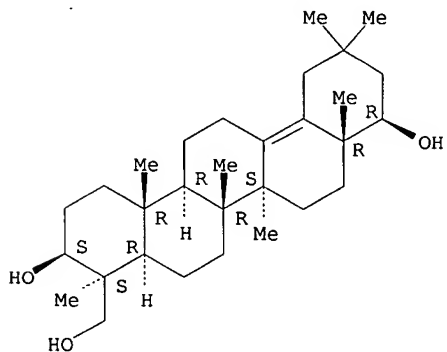
Absolute stereochemistry.





L9 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1988:109560 CAPLUS  
 DN 108:109560  
 TI Triterpene saponins of *Trigonella monspeliaca* L  
 AU Oleszek, Wieslaw; Jurzysta, Marian; Burda, Stanislaw; Ploszynski, Michal  
 CS Dep. Biochem., Inst. Uprawy, Nawozenia Glebozn., Pulawy, 24-100, Pol.  
 SO Acta Societatis Botanicorum Poloniae (1987), 56(2), 281-5  
 CODEN: ASBNA2; ISSN: 0001-6977  
 DT Journal  
 LA English  
 AB The triterpene saponin fraction, isolated by EtOH extraction from *T. monspeliaca* tops was analyzed by 2-dimensional TLC and mass spectrometry. Ten saponosides were obtained, 3 of which were medicagenic acid glycosides and the other 7 were soyasapogenol glucosides. Acid hydrolysis of the saponin fraction gave medicagenic acid, soyasapogenol B and its artifacts soyasapogenol C, D, and F.  
 IT 104033-83-2, Soyasapogenol F  
 RL: BIOL (Biological study)  
 (from acid hydrolysis of saponins of *Trigonella monspeliaca*)  
 RN 104033-83-2 CAPLUS  
 CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

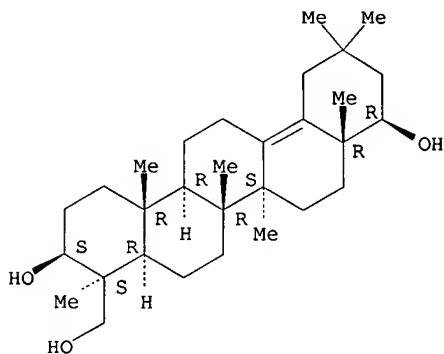


L9 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1988:91707 CAPLUS  
 DN 108:91707  
 TI Studies on *Medicago lupulina* saponins. 5. Isolation and chemical characterization of blossom saponins  
 AU Jurzysta, Marian; Burda, Stanislaw; Oleszek, Wieslaw; Gorski, Piotr; Ploszynski, Michal  
 CS Dep. Biochem., Inst. Uprawy, Nawozenia Glebozn., Pulawy, 24-100, Pol.  
 SO Acta Societatis Botanicorum Poloniae (1987), 56(1), 101-6  
 CODEN: ASBNA2; ISSN: 0001-6977  
 DT Journal  
 LA English  
 AB From *Medicago lupulina* flowers, 2 saponin fractions were isolated. The crystalline saponin fraction, readily precipitable from aqueous solns., was a mixture of 3 glycosides of soyasapogenol B. Their acid hydrolysis yielded

soyasapogenol B and its 3 artifacts: soyasapogenols C, D, and F. The 2nd fraction, obtained by precipitation with cholesterol, consisted of 7 hemolytically active medicagenic acid glucosides. Their hydrolysis gave medicagenic acid and glucose, xylose, rhamnose, and traces of glucuronic acid.

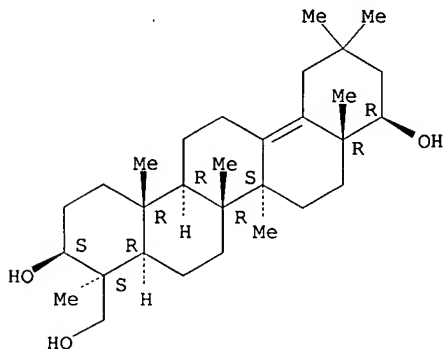
IT 104033-83-2, Soyasapogenol F  
 RL: BIOL (Biological study)  
 (artifact from *Medicago lupulina*)  
 RN 104033-83-2 CAPLUS  
 CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1988:91706 CAPLUS  
 DN 108:91706  
 TI Studies on *Medicago lupulina* saponins. 6. Some chemical characteristics and biological activity of root saponins  
 AU Oleszek, Wieslaw; Jurzysta, Marian; Gorski, Piotr; Burda, Stanislaw; Ploszynski, Michal  
 CS Dep. Biochem., Inst. Uprawy, Nawozenia Glebozn., Pulawy, 24-100, Pol.  
 SO Acta Societatis Botanicorum Poloniae (1987), 56(1), 119-26  
 CODEN:: ASBNA2; ISSN: 0001-6977  
 DT Journal  
 LA English  
 AB The purified fraction of *Medicago lupulina* root saponins consists of 14 compds., 2 of which are medicagenic acid glycosides as indicated by 2-dimensional thin-layer chromatog. Its hydrolysis gave medicagenic acid, hederagenin, and soyasapogenols B, C, D, E, and F. The hemolytic, fungicidal, and allelopathic activities of *M. lupulina* were also studied.  
 IT 104033-83-2, Soyasapogenol F  
 RL: BIOL (Biological study)  
 (from *Medicago lupulina*)  
 RN 104033-83-2 CAPLUS  
 CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA  
 INDEX NAME)

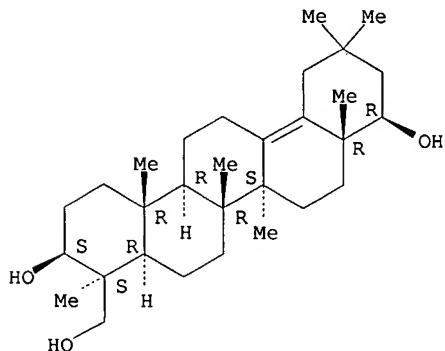
Absolute stereochemistry.



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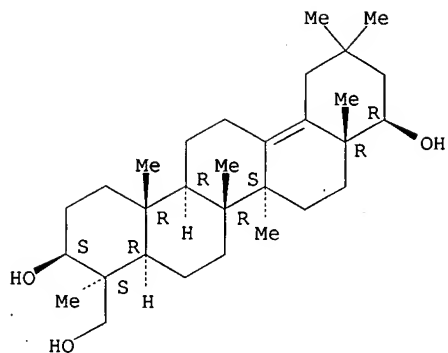
L9 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1987:614824 CAPLUS  
DN 107:214824  
TI Structure of soyasapogenol B1  
AU Ireland, Philip A.; Dziedzic, Stanley Z.; Drew, Michael G. B.; Forsyth, George A.  
CS Dep. Food Sci. Technol., Univ. Reading, Whiteknights/Reading, RG6 2AP, UK  
SO Journal of Agricultural and Food Chemistry (1987), 35(6), 971-3  
CODEN: JAFCAU; ISSN: 0021-8561  
DT Journal  
LA English  
AB The structure of soyasapogenol B1, previously shown to be an artifact of hydrolysis of soybean saponins, was elucidated by x-ray crystallog. and confirmed by mass spectrometry as 3 $\beta$ ,22 $\beta$ ,24-trihydroxyolean-13(18)-ene.  
IT 104033-83-2, Soyasapogenol B1  
RL: BIOL (Biological study)  
(isolation and structure determination of)  
RN 104033-83-2 CAPLUS  
CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



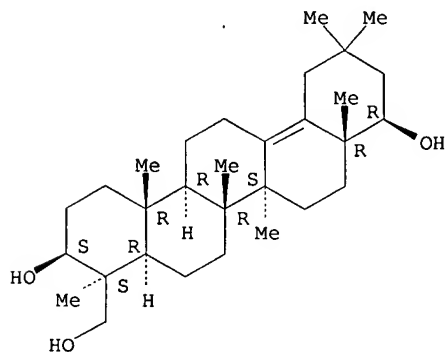
L9 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
AN 1987:65901 CAPLUS  
DN 106:65901  
TI Soyasapogenols - separation, analysis and interconversions  
AU Price, Keith R.; Fenwick, G. Roger; Jurzysta, Marian  
CS Inst. Food Res., AFRC, Norwich, NR4 7UA, UK  
SO Journal of the Science of Food and Agriculture (1986), 37(10), 1027-34  
CODEN: JSFAAE; ISSN: 0022-5142  
DT Journal  
LA English  
AB The hydrolysis products of soyasaponins in legumes and of pure stds. have been examined using TLC, gas chromatog., and gas chromatog.-mass spectrometry. Interrelationships between eight soyasapogenols, produced under conditions of aqueous or nonaq. acid hydrolysis, have been established. The significance of the work to the anal. of soyasaponins is discussed.  
IT 104033-83-2, Soyasapogenol F  
RL: PROC (Process)  
(separation of, from legumes, by TLC and gas chromatog. and gas chromatog.-mass spectrometry)  
RN 104033-83-2 CAPLUS  
CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1987:30074 CAPLUS  
 DN 106:30074  
 TI Isolation, chemical characterization and biological activity of red clover  
 (Trifolium pratense L.) root saponins  
 AU Oleszek, Wieslaw; Jurzysta, Marian  
 CS Dep. Biochem., Inst. Soil Sci. Plant Cultiv., Pulawy, 24-100, Pol.  
 SO Acta Societatis Botanicorum Poloniae (1986), 55(2), 247-52  
 CODEN: ASBNA2; ISSN: 0001-6977  
 DT Journal  
 LA English  
 AB Crystalline saponins, isolated from red clover roots, are a mixture of glycosides  
 with no hemolytic or fungistatic activity. Acid hydrolysis of the  
 saponins gave soyasapogenols B, C, D, E, and F and the sugar components,  
 rhamnose, xylose, arabinose, glucose, and glucuronic acid. Aqueous  
 suspensions of the saponins did not affect winter wheat seedling growth.  
 IT 104033-83-2, Soyasapogenol F  
 RL: BIOL (Biological study)  
 (in saponins of red clover roots)  
 RN 104033-83-2 CAPLUS  
 CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA  
 INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1986:622710 CAPLUS  
 DN 105:222710  
 TI Effect of hydrolysis on sapogenin release in soy  
 AU Ireland, Philip A.; Dziedzic, Stanley Z.  
 CS Dep. Food Sci., Univ. Reading, Reading, RG6 2AP, UK  
 SO Journal of Agricultural and Food Chemistry (1986), 34(6), 1037-41  
 CODEN: JAFCAU; ISSN: 0021-8561  
 DT Journal  
 LA English  
 AB The effect of various hydrolysis procedures on the sapogenin yield and  
 profile of soya saponins was investigated. Hydrolysis for 3 h with 3%  
 H<sub>2</sub>SO<sub>4</sub> in an anhydrous methanolic environment gave the highest yield of total  
 sapogenins and also only liberated soyasapogenols A and B. The results

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show that soyasapogenols B1, C, D, and E are artifacts of the hydrolysis procedure.

IT 104033-83-2

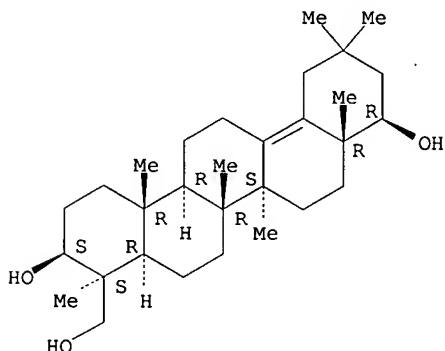
RL: BIOL (Biological study)

(as artifact, in hydrolysis of soybean)

RN 104033-83-2 CAPLUS

CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1986:549761 CAPLUS

DN 105:149761

TI Isolation, chemical characterization and biological activity of alfalfa (Medicago media Pers.) root saponins

AU Oleszek, Wieslaw; Jurzysta, Marian

CS Dep. Biolchem. Physiol. Crop Plants, Inst. Soil Sci. Plant Cultiv., Pulawy, 24-100, Pol.

SO Acta Societatis Botanicorum Poloniae (1986), 55(1), 23-33

CODEN: ASBNA2; ISSN: 0001-6977

DT Journal

LA English

AB Saponins were extracted from alfalfa roots and subjected to acid (H<sub>2</sub>SO<sub>4</sub>) hydrolysis to give aglycons and sugars. The aglycon fraction of cholesterol-precipitable saponins contains medicagenic acid (I) and the sugar fraction is a mixture of glucose, arabinose, xylose, and rhamnose. The non-precipitable saponins have hederagenin and soyasapogenols A, B, C, D, E, and F as aglycons and glucose, arabinose, xylose, galactose, and glucuronic acid in the sugar fraction. The I glycosides caused red blood cell lysis (hemolytic index 3000), completely inhibited *Trichoderma viride* growth, and, at 100 ppm, retarded wheat seedling growth.

IT 104033-83-2

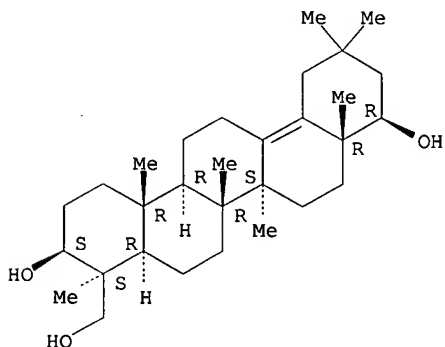
RL: BIOL (Biological study)

(of saponins from alfalfa roots)

RN 104033-83-2 CAPLUS

CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

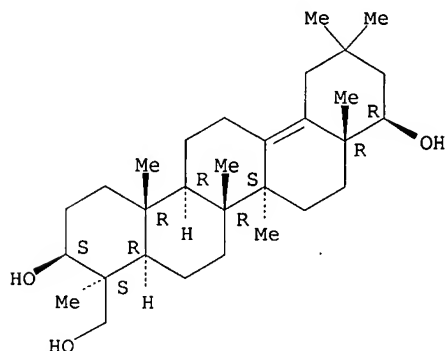
Absolute stereochemistry.



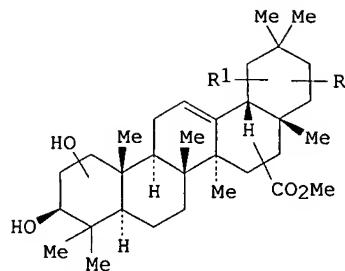
McIntosh

L9 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1985:468278 CAPLUS  
 DN 103:68278  
 TI Studies on *Medicago lupulina* saponins. II. Isolation, chemical characterization, and biological activity of saponins from *M. lupulina* tops  
 AU Gorski, Piotr M.; Jurzysta, Marian; Burda, Stanislaw; Oleszek, Wieslaw A.; Ploszynski, Michal  
 CS Dep. Biochem. Physiol. Crop Plants, Inst. Soil Sci. Plant Cultiv., Pulawy, 24-100, Pol.  
 SO Acta Societatis Botanicorum Poloniae (1984), 53(4), 527-33  
 CODEN: ASBNA2; ISSN: 0001-6977  
 DT Journal  
 LA English  
 AB Two saponin fractions (Ma, Ss) were isolated from *M. lupulina* tops and separated into 5 and 11 components, resp., by TLC in 7:2:2 AcOEt-AcOH-H<sub>2</sub>O and 4:1:1 BuOH-AcOH-H<sub>2</sub>O solvent systems, and subjected to acid hydrolysis to analyze their aglycon and sugar composition. Thus, in the acid hydrolyzates of Ma saponins medicagenic acid as well as rhaminose, xylose, arabinose, and glucuronic acid, whereas in those of Ss saponins soyasapogenols B, C, D, E, F, N, and An as well as the same sugars + glucose and galactose were found. The Ma fraction (but not the Ss) was fungistatic, hemolytic, and toxic to fish.  
 IT 104033-83-2  
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence) (of *Medicago lupulina*)  
 RN 104033-83-2 CAPLUS  
 CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2007 ACS on STN  
 AN 1985:468277 CAPLUS  
 DN 103:68277  
 TI Studies on *Medicago lupulina* saponins. I. Isolation and identification of sapogenins from *M. lupulina* tops  
 AU Gorski, Piotr M.; Jurzysta, Marian; Burda, Stanislaw; Oleszek, Wieslaw A.; Ploszynski, Michal  
 CS Dep. Biochem. Physiol. Crop Plants, Inst. Soil Sci. Plant Cultiv., Pulawy, 24-100, Pol.  
 SO Acta Societatis Botanicorum Poloniae (1984), 53(4), 515-25  
 CODEN: ASBNA2; ISSN: 0001-6977  
 DT Journal  
 LA English  
 GI

I, R=H, R<sup>1</sup>=OHII, R<sup>1</sup>=O

AB Crude saponins were isolated from *M. lupulina* tops and subjected to acid hydrolysis the 8 aglycons found were separated by TLC in 7:2:1 petroleum ether-CHCl<sub>3</sub>-AcOH and 92:8 C<sub>6</sub>H<sub>6</sub>-EtOH solvent systems and investigated by IR and mass spectrometry. The aglycons were identified as soyasapogenols B, C, D, E, F, and medicagenic acid. The 2 new aglycons, An (I) and N (II), were identified as pentacyclic triterpenes. The CO<sub>2</sub>Me groups in I and II are probably bound to C17 and OH groups to C23. Also, the 3rd OH group is in the C 21/22 position in I and the keto group is attached to C 21/22 in II.

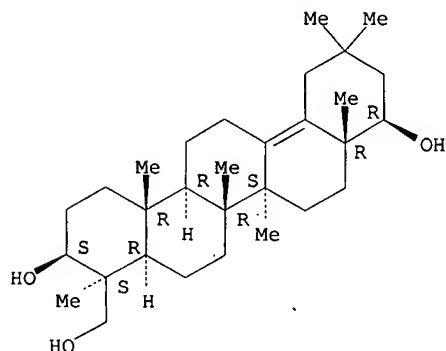
IT 104033-83-2

RL: BOC (Biological occurrence); BSU (Biological study, unclassified);  
BIOL (Biological study); OCCU (Occurrence)  
(of *Medicago lupulina*)

RN 104033-83-2 CAPLUS

CN Olean-13(18)-ene-3,22,23-triol, (3 $\beta$ ,4 $\beta$ ,22 $\beta$ )- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.



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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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L10        STRUCTURE UPLOADED

=> d l10

L10 HAS NO ANSWERS

L10                STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l10 sss sam

SAMPLE SEARCH INITIATED 09:12:21 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED -        241 TO ITERATE

100.0% PROCESSED        241 ITERATIONS

2 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:    ONLINE    \*\*COMPLETE\*\*

BATCH    \*\*COMPLETE\*\*

PROJECTED ITERATIONS:        3889 TO        5751

PROJECTED ANSWERS:            2 TO        124

L11            2 SEA SSS SAM L10

=> s l10 full

FULL SEARCH INITIATED 09:12:26 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED -        4594 TO ITERATE

100.0% PROCESSED        4594 ITERATIONS

32 ANSWERS

SEARCH TIME: 00.00.01

L12            32 SEA SSS FUL L10

=> d his

(FILE 'HOME' ENTERED AT 09:02:30 ON 02 APR 2007)

FILE 'REGISTRY' ENTERED AT 09:02:47 ON 02 APR 2007

L1            STRUCTURE UPLOADED

L2            14 S L1 SSS SAM

L3            STRUCTURE UPLOADED

L4            2 S L3 SSS SAM

L5            32 S L3 FULL

L6            STRUCTURE UPLOADED

L7            2 S L6 FULL

FILE 'CAPLUS' ENTERED AT 09:08:10 ON 02 APR 2007

L8            75 S L5

L9            15 S L7

FILE 'REGISTRY' ENTERED AT 09:11:54 ON 02 APR 2007

L10           STRUCTURE UPLOADED

L11           2 S L10 SSS SAM

L12           32 S L10 FULL

McIntosh